DO REFORMS IN TRANSITION ECONOMIES AFFECT FOREIGN BANK ENTRY?

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Abstract:
Using a newly developed database for 8 transition economies, this paper examines whether reforms and political freedom are important for foreign bank entry. The paper provides strong evidence that foreign bank entry positively responds to reform measures. We also find some evidence for the importance of political freedom. The size of the financial sector and the openness of a country appear to be important determinants of a country's willingness to attract foreign banks. Moreover, we find that reforms significantly affect foreign bank entry via the efficiency of the financial sector, the structure of the financial sector and by stimulating domestic investment.

Key words: **foreign bank; transition economies; foreign entry determinants; foreign bank entry effects**

JEL Classification No.: **F21, G21, G34, P21.**

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1. Introduction

The growing presence of foreign-owned financial institutions during the 1990s is one of the most striking structural changes in the financial systems of the countries in transition. Currently, on average 60 per cent of the total number of banks is in foreign hands. In some Central Eastern European (CEE), South Eastern European (SEE) and Baltic countries, the share of foreign bank assets relative to total assets of the banking system is even more than 75% (Bol et al., 2002). This 'takeover' has occurred within a period of less than ten years. Given the high and growing share of foreign bank ownership, there is a growing need for studies on the reasons for foreign bank entry in transition economies. The existing literature on foreign bank entry mainly deals with Western European countries, or with the US (Buch, 2000). There are only a few studies focusing on transition economies, but they only consider one country, or a small group of countries (e.g. Galac and Kraft, 2000, for Croatia, and Konopielko, 1999, for the Czech Republic, Hungary and Poland).

In this paper we examine the reasons for foreign bank entry in transition economies. The goal of this paper is to test whether reforms and political freedom in a group of transition economies have positively contributed to foreign bank entry. We also examine via which channels reforms affect foreign bank entry. In our view, these issues are of utmost importance for policymakers in transition economies who are aiming to attract foreign banks. It may seem obvious that reforms have an important effect on foreign bank entry. However, to the best of our knowledge, there are no empirical papers available that have explicitly addressed this issue. We find strong evidence for the importance of reforms for foreign bank entry. Also political freedom seems to be important, although in some of the regressions political freedom does not significantly affect foreign bank entry. Moreover, the estimates suggest that reforms affect foreign bank entry by enhancing the efficiency of the financial sector, by changing the structure of the financial sector, and by stimulating domestic investments.

The paper is organized as follows. Section 2 gives an overview of the literature on determinants of foreign bank entry. Section 3 discusses the data set. Section 4 contains the estimation results for the determinants of foreign bank entry. Section 5 concludes.

2. Literature review

2.1 Theory on determinants of foreign bank entry

Why do banks go abroad? There is no unambiguous theory to explain foreign bank entry. Nevertheless, several reasons are put forward in the literature (Buch, 2000, Focarelli and Pozzolo, 2000, Konopielko, 1999). The main reason for foreign bank entry seems to be the 'follow the customer' principle, otherwise called the defensive expansion hypothesis (Williams, 2002). According to this view, a bank follows its customer's abroad to support its already existing relationship in the new country. A second reason why a bank might go abroad is because of the attractiveness of the host market. The market of the host country offers new opportunities to make money. The literature comes up with some other reasons as well, but they have not been mentioned in the context of transition economies. For instance, imitation of competitors, i.e. a multinational bank opens a branch in a specific country because another multinational did likewise. A reduction of the (capital) costs is another reason: internalisation gives a bank the opportunity to perform arbitrage. Moreover a multinational bank has access to worldwide capital sources. Finally, foreign banks may decide to go abroad in order to diversify financial risks (Canals, 1997).

Another approach, that partly includes the five reasons mentioned above, to explain foreign bank entry is based on the eclectic paradigm, introduced by Dunning (e.g., Dunning, 2001). Within this paradigm, advantages of foreign bank entry are based on three different theories. These are 1) *ownership-specific* advantages, based on the comparative advantages of the foreign bank; 2) *location* advantages and 3) incentives related to *internalization.* Ownership-specific advantages refer to e.g. access to the endowments of the parent company at costs below market price, management skills, image, and existing bank-client relations. Location advantages are, for example, barriers to trade, institutional arrangements, and the financial situation of the host country. The incentives related to *internalization* are advantages of multinational enterprises derived from the possibility of limiting the costs of market failures by carrying out a share of their transactions within the boundaries of the firm.[1]

2.2 Empirics on determinants foreign bank entry

It is not so easy to test the various theoretical arguments for foreign bank entry outlined in the previous section. Several determinants have been suggested in the literature (e.g. Buch, 2000,

[1] More details on the theories of foreign bank entry can be found in, for example, Focarelli and Pozzolo (2000), Dunning (2001) and Williams (1997).

Focarelli and Pozzolo, 2000)[2]. One set of suggested determinants relate to the performance of a domestic financial sector, measured by indicators such as the return on equity, the net interest margin, overhead costs, and after tax income. To be expected is a positive relation between foreign bank entry and a good performance of the domestic banking sector. Other examples are: the size of the financial system of the host country (total assets, private credit, central bank assets, concentration ratio), again a positive relation can be expected; information costs (distance from home country, common language, legal system, country risk, culture); regulations (degree of freedom in banking), and the presence of an international financial centre. Finally, several macro economic indicators are also used to proxy the attractiveness of the host country (GDP, population, FDI, investment rate, export of host country).

A potential problem with many of these variables is that the causality may go in the other direction. For instance, more foreign bank entry may enhance the overall efficiency of the banking sector. There is quite some evidence for transition countries that foreign banks are, on average, more efficient than domestic banks (see Bol et al., 2002). Likewise, as foreign banks are more oriented towards the private sector than domestic banks, foreign bank entry may affect the level of domestic investment (Bol et al., 2002). Another problem with some of the variables is that is not always clear which hypothesis they proxy. For instance, does a positive relation between FDI and foreign bank entry support the 'follow the customer' argument, or does it reflect the attractiveness of the new market?

Table 1 summarizes the existing literature on the determinants of foreign bank entry for Central Eastern European countries, South Eastern European countries and the Baltics. Some studies are based on bank-level data, where reasons of foreign bank entry are obtained by means of questionnaires (Galac and Kraft, 2000, Hoskova and Vagnerova, 1998, Konopielko 1999). Other studies use macro data (Konopielko 1999, Mathieson and Roldos, 2001).

[2] The study by Buch (2000) refers to reasons for German banks to go abroad, while Focarelli and Pozzolo (2000) examine a broader set of OECD countries. However, both studies do not deal with transition countries.

Table 1: Summary of the literature on the determinants of foreign bank entry with the focus on European transition economies

Paper	**Sample**	**Foreign bank entry indicator**	**Method**	**Determinants / findings**	Significant
Konopielko (1999)	Poland, Hungary and Czech Republic 1996	70 leading banks, 1= present, 0= not present in at least one country	1) OLS/ Logit	Size (total assets) Export Import Cumulative volume of FDI from the home bank's country Distance	Yes, Czech R. Yes, Poland Yes, Poland Yes, Poland No
	Poland, Hungary and Czech Republic 1999	14 banks (out of 70) responded	2) Postal survey	Main motives for entry: supporting client base, looking for new business opportunities, supporting trade finance, meeting the competition, trading debt and equity securities, develop local client base.	Most important: Supporting client base.
Mathieson and Roldos (2001)	1135 banks from 15 emerging countries (incl. Czech R. Hungary and Poland) 1991-1999	'Measures' of foreign control and participation in 1995 and 1999. Data source: BankScope	Panel regressions	Averages for the periods 1991-94 and 1995-99 Rate of return on equity Operating costs Non performing loans Banking crisis Rate of inflation GDP growth Regional dummies.	 Yes No Yes Yes No Yes Yes
Hoskova and Vagnerova (1998)	Slovakia 1997/8 10 foreign banks (included: branches, representatives and		Analysis of all foreign banks and analysis of experiences of employees of	Main motive: 'winning the best clientele' large companies, foreign investors. Advantages of Slovak banking market: Banking market is not overfilled and it showed a 'great progress in quality'.	

	banks with foreign participation).		foreign banks.		
Galac and Kraft (2000)	Croatia End 1999		Interviews with representatives of 47 (total number is 53) foreign and domestic banks.	Reasons for coming and staying: Following existing clients/ doing business with home country clients. Activities: Focused on large companies.	

The table suggests that the main motive of foreign banks to become active in Central and Eastern European countries is the perceived need to support the client base, 'following the existing clients' (Konopielko, 1999, Galac and Kraft, 2000).

However, these conclusions cannot be generalized since the existing empirical literature concentrates on only a few transition countries: Poland, Czech Republic and Hungary. Furthermore, most literature is rather ad hoc, both in terms of theory (i.e. the model specification) and in terms of methodology. Moreover, it is remarkable that none of the papers has addressed the importance of political freedom and economic reforms. Transition economies are in a process from a communist plan economy to a democratic market economy. The degree to which this has taken place, i.e. the level of political freedom and economic reforms, are probably important considerations for foreign banks to enter one of these countries. For instance, countries that successfully established safe, transparent and enforceable rules for financial markets are probably attractive for foreign banks. Moreover, foreign ownership requires privatization. In addition, the removal of entry barriers, memberships of WTO and enterprises operating according to western 'standards' with respect to financial structure, corporate control etc., makes the market more attractive for foreign banks.

3. Data

A main problem with respect to research on foreign banking for transition economies is that many important variables are lacking. This holds also for our study, to some extent. Nevertheless, we succeeded in developing a relatively comprehensive data set. By approaching Central Banks in transition countries and by using the existing data published by the IMF, Worldbank and the EBRD in their country reports we were able to come up with a relatively sophisticated database. It contains indicators for the development of the countries in general and the financial sector in particular. Moreover, it provides information on the structure and performance of the financial system. This paper uses a selection of variables from this database.[3] For a complete list of data sources and variable definitions, see the Appendix.

The set of countries include Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland and Slovenia. The selection of these countries is mainly based on data availability for our foreign bank entry variable. The data refer to the 1992-2000 period. Since the years for which data are available differ per country, the estimates are done for an unbalanced panel. For all variables in the estimates we take the logarithm to better account for possible heteroskedasticity problems.

[3] See Bol et al. (2002) for further details. The database is available on request.

The database distinguishes two indicators for foreign bank entry. The first indicator is the ratio between the total value of assets of foreign[4] deposit money[5] banks divided by the value of assets of all banks (*VFORB)*. The second indicator is the total number of foreign banks divided by the total number of banks (*NFORB)*. From both indicators we take the logarithm (*LFORB* and *LNFORB*, respectively), and construct an overall indicator for foreign bank entry by performing a principal components analysis on *LVFORB* and *LNFORB.* The principal components analysis strongly suggests that there is one dominant factor (the proportion of the total variance explained by one component equals 0.97). The factor loading are 0.48 for *LNFORB* and 0.875 for *LVFORB*. Since the resulting foreign bank entry indicator (*FBANK*) is highly correlated with both *LNFORB* and *LVFORB* (correlation coefficients of 0.996 and 0.956 with *LVFORB* and *LNFORB*, respectively) and since *LVFORB* and *LNFORB* are also highly correlated (correlation coefficient of 0.924) we only present regressions in which *FBANK* is the dependent variable (see section 4).

Table 2 gives some data on the bank indicators for our sample of countries. The data refer to 1999, the latest year for which data where available for all countries. Note that *FBANK* is based on a the logarithm of *VFORB* and *NFORB.* Our data show that Estonia, Hungary, Latvia, Lithuania and the Czech Republic score high on all indicators for foreign bank presence, while especially Slovenia scores low.

Table 2: A Comparison of foreign bank entry variables

	NFORB 1999	*VFORB* 1999	*FBANK* 1999
Croatia	0.25	0.41	0.73
Czech Republic	0.67	0.4	1.19
Estonia	0.43	0.9	1.69
Hungary	0.74	0.658	1.67
Latvia	0.54	0.757	1.64
Lithuania	0.54	0.383	1.05
Poland	0.51	0.472	1.2
Slovenia	0.2	0.047	-1.27

In our data set we have six indicators that may pick up the relevance of reforms and political freedom. Four indicators are constructed and published by the EBRD (EBRD transition report 1998, p. 27, 2001). The first three variables indicate reform, with higher values implying more reforms. These indicators are: 1) reforms in the banking sector and interest rate liberalization (*EBRDIBR*). Lower values indicate 'little progress beyond establishment of the

[4] A bank is considered foreign when more than 50% of the stocks is foreign owned.
[5] Excluded are cooperative banks, mortgage banks, saving banks (Beck et al, 1999)

two-tier system.' The highest values indicate 'full convergence of banking laws and regulations with BIS standards; provision of full set of competitive banking services' and several transition stages in between; 2) the transition of trade and the foreign exchange system *(EBRDFR)*; 3) the extent of transition within enterprises (*EBRDIER).* The fourth indicator refers to the extent to which the economy has changed from public to private, measured by the share of the private sector relative to the public sector (*PRSEC*). Finally, we have a measure for the degree of civil rights (*CIVILR*) and an indicator for the degree of democracy (*DEMOC*) of the country (CIFP, 2002). With respect to the latter two variables, a higher value implies a lower degree of civil rights or democracy.

Since the six variables are probably closely related, and may pick up several aspects of the same issue (reforms and political democratization) we apply factor analysis to examine whether the correlation between the (logarithms of the) six indicators can be explained in terms of not observable factors. The factor analysis suggests that the six indicators can be decomposed into two underlying factors, of which one mainly has to do with reforms (*REFORM)* and one mainly has to do with political freedom (*POLITIC*). The factor loadings of the two factors are given in Table 3. Table 4 gives some information on *REFORM* and *POLITIC* for the countries in our dataset.

Table 3: Factor loadings for REFORM and POLICY

	FACTOR1=REFORM	*FACTOR2=POLITIC*
LCIVILR	-0.191	0.930
LDEMOC		0.794
LEBRDIER	0.923	
LEBRDIBR	0.766	-0.202
LEBRDFR	0.801	
LPRSEC	0.824	-0.161
Chi Square: 5.99; Df=4; p-value=0.2; CUMVAR=0.73		

Note: Factor loadings smaller than 0.1 are not reported. The Chi Square statistic tests the hypothesis that the amount of factors taken into account (in this case 2) are sufficient versus the alternative that more are required. Df denotes the degrees of freedom. The p-value reflects the probability of incorrectly rejecting the null, so that a higher p-value gives more confidence that the amount of factors is sufficient. CUMVAR gives the cumulative variance explained by the factors taken into account. A *L* before the variable names denotes the logarithm of that variable. The factor analysis is done on 54 observations.

Table 4: REFORM and POLITIC in 1999

	REFORM	*POLITIC*
Croatia	-0.1	2.8
Czech Republic	0.69	-0.41
Estonia	0.61	-0.07
Hungary	1.24	-0.35
Latvia	0.06	-0.18
Lithuania	-0.14	-0.52
Poland	0.49	-0.22
Slovenia	0.05	-0.5

Note: for *REFORM* a higher value reflects **more** reforms; for *POLITIC* a higher value reflects **lower** freedom.

Table 4 shows that especially Hungary scores high on reforms. Croatia, Latvia, Slovenia and Lithuania have the lowest scores. The Czech Republic, Estonia and Poland are a middle group. With respect to *POLITIC*, the countries with the highest freedom are Lithuania, Slovenia, Hungary and the Czech Republic. Croatia is clearly on the other end of the spectrum.

In the econometric analysis we control for different groups of variables that are traditionally mentioned to be important for foreign bank entrance. To start with, the literature suggests that the size and efficiency of the financial sector probably is an important pull factor for foreign banks. For this reason, we try to construct a variable that measures the development of the financial sector. Our data set includes seven indicators that may have something to do with financial sector development. These variables are: 1) private credit by deposit money bank assets over GDP (*PRIVATC);* 2) deposit money bank assets over GDP (*BANKGDP);* 3) Deposit money bank assets over the sum of central bank assets and deposit money bank assets (*BANKTOTAL);* 4) the M2 to GDP ratio *(M2GDP)*; 5) stock market capitalization in percentages of GDP (*MARKETC)*; 6) the interest rate spread (*SPREAD:* lending minus deposit rate), and 7) the rate of inflation (*INFL).* Again we use a factor analysis to see whether there are some common underlying factors. This analysis shows that the seven "financial sector" indicators can be decomposed into three underlying factors. A closer look at the factorloadings for the three factors (see Table 5) shows that the first factor primarily has to do with the size of the financial sector (*FINSIZE).* For this factor, especially the financial size indicators *LBANKGDP, LPRIVATC* and *LM2GDP* are important. The second factor is very much determined by *SPREAD*. This factor therefore reflects the efficiency of the financial sector. Note that an increase in *SPREAD* corresponds to a decrease in the efficiency of the financial sector. The third factor is the most difficult too explain. Especially market capitalization is important. This factor seems to primarily reflect the importance of the stock market. However, since also *LBANKTOTAL,* dealing with the relevance of deposit money, is

important, we interpret this factor as being related to the structure of the financial sector *(FINSTR*).

Table 5 : Factorloadings for FINSIZE, FINEFF and FINSTR

	FACTOR1: FINSIZE	*FACTOR2: FINEFF*	*FACTOR3: FINSTR*
LBANKGDP	0.951		
LPRIVATC	0.965		0.260
LBANKTOTAL		0.322	0.432
LMARKETC	0.317	-0.476	0.627
SPREAD	-0.146	0.870	
LM2GDP	0.808	-0.446	
LINFL			-0.592
Chi Square: 5.2; Df=3; p-value=0.158; CUMVAR=0.70			

Note: see note Table 4

We also control for variables that are traditionally considered to be important indicators for "follow the customer" and "attractiveness of the market" reasons. However, it is difficult to clearly distinguish between a group of variables that primarily deals with "follow the customer" and "attractiveness of the market" reasons. Moreover, these variables may be highly correlated with each other. For these reasons we selected 7 variables often mentioned to be important, and use a factor analysis to see whether these variables can be grouped in terms of "follow the customer" or "attractiveness of the market" considerations. The variables that we use are: 1) GDP per capita (*GDPPC*); 2) the investment to GDP ratio (*INVEST*); 3) the size of the population (*POP*) ; 4) the ratio of foreign direct investments over GDP (*FDIGDP*); 5) the imports to GDP ratio (*IMPGDP*) ; 6) tariff revenues as a percentage of imports (*TARIFF*) and 7) the trade to GDP ratio (*TRADE*). The factor analysis on the logarithms of these variables shows that a decomposition in three factors can be made. Table 6 shows the factorloadings for these factors.

Table 6: Factorloadings for OPEN, INVEST and WEALTH

	FACTOR1: OPEN	*FACTOR2: INVEST*	*FACTOR3: WEALTH*
LGDPPC	0.136	0.160	0.978
LINVEST	0.186	0.982	
LPOP	-0.887	0.127	
LFDIGDP	0.125	0.379	-0.481
LIMPGDP	0.922	0.341	
LTARIFF	-0.547	-0.281	0.386
LTRADE	0.932	0.298	
Chi Square: 4.34; Df=3; p-value=0.227; CUMVAR: 0.81			

Note: see note Table 3.

The first factor has high factor loadings for *LTRADE, LIMPGDP* and *LTARIFF*. This suggests that the first factor mainly has to do with the openness of a country (*OPEN*). Since the factor loading for *LPOP* is also very high, but with a negative sign, there appears to be a strong correlation between the openness of a country and the size of the population: countries with a small population are more open. The second factor mainly has to do with the investment rate (*INVEST*). The logarithm of GDP per capita has a very high factor loading on the third factor. This seems to imply that Factor 3 mainly deals with wealth (*WEALTH*). It is somewhat difficult to explain that *LFDIGDP* and *LTARIFF* have high factorloadings on factor 3. Apparently, the richer countries among the group of transition economies we consider are more extensive users of import tariffs, and because of the import restrictions, are less attractive for foreign investors. Note that traditional "follow the customer" variables like *LFDIGDP* and *LIMPGDP* do not score high on the same underlying factor. This questions, to some extent, the relevance of the usual distinction between "follow the customer" reasons and "attractiveness of the market" reasons for explaining foreign bank entry.

Table 7 presents a correlation matrix for the main variables of the analysis. The correlation matrix points at several interesting issues. First, the correlation coefficient between *REFORM* and *FBANK* is very high. This gives some first evidence for the importance of reforms for attracting foreign banks. Second, there is a very high correlation between *REFORM* and *FINEFF,* which may imply that reforms have a strong positive impact on the efficiency of the financial sector. The financial structure, reflected by *FINSTR*, is also highly correlated with *REFORM*. However, there does not seem to be a relationship between reforms and the size of the financial sector (*FINSIZE)*. *REFORM* and *INVEST* are also highly correlated, suggesting a co-movement of reforms and domestic investments. Finally, there is a

high correlation between *FBANK* and *FINEFF*, *INVEST* and, too a lower extent, *FINSTR*. This suggests that reforms probably affect foreign bank entry via the efficiency of the financial sector, the structure of the financial sector, and the amount of domestic investments. In the next section, we will explicitly test this.

Table 7: Correlation Matrix

	FBANK	*POLITIC*	*REFORM*	*INVEST*	*FINSIZE*	*FINEFF*	*FINSTR*	*OPEN*	*WEALTH*
FBANK	1.00								
POLITIC	-0.35	1.00							
REFORM	0.50	-0.02	1.00						
INVEST	0.41	-0.16	0.53	1.00					
FINSIZE	-0.14	0.08	0.08	0.45	1.00				
FINEFF	-0.48	0.35	-0.71	-0.32	-0.004	1.00			
FINSTR	0.20	0.20	0.27	0.54	0.08	0.002	1.00		
OPEN	-0.03	0.07	-0.13	0.003	-0.03	0.29	0.54	1.00	
WEALTH	-0.30	-0.14	-0.16	0.001	0.64	0.11	-0.08	0.003	1.00

4. Estimation results

This section presents regression results on the relevance of reforms for foreign bank entry. The high correlation between various variables as reported in table 7, does not make it possible to include all constructed explanatory variables in one regression. Therefore, the estimated equations are specified as follows:

$$FBANK = \alpha_i \sum_i c_i + \beta FINSIZE + \gamma OPEN + \varphi_j REFORM + \varepsilon$$

where c_i is a country specific constant for country i. i = (Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland and Slovenia); and Π is an error term. Because of the high correlation between *REFORM* and *FINEFF, FINSTR* and *INVEST*, the latter variables are - for the time being - not included in the equation for foreign bank entry to avoid multicollinearity problems. As we will argue below, it seems likely that foreign bank entry will affect the efficiency and the structure of the financial system and domestic investment, which may explain the high correlation between these variables and *FBANK* reported in Table 7. Because of high multicollinearity between *FINSIZE* and *WEALTH (*see Table 7), only one of these variables is included.

Table 8: Regression results for the reform and political freedom factors

	1	2	3	4	5
REFORM	0.877	0.636	0.608	0.600	0.512
	(3.29)	(2.38)	(2.01)	(1.97)	(1.63)
POLITIC	-1.934	-0.949	-1.354	-1.265	-1.174
	(-2.82)	(-1.65)	(-1.84)	(-1.69)	(-1.84)
FINSIZE		1.483		0.215	
		(3.15)		(0.42)	
OPEN		1.149			0.825
		(2.07)			(1.59)
WEALTH			1.093	0.989	1.461
			(2.29)	(1.73)	(2.56)
adj. R^2	0.59	0.63	0.61	0.61	0.64

Note: t-values in parentheses. The t-values are based on White Heteroskedasticity-consistent standard errors and covariances. The amount of observations for all equations is 54. The country specific constants are not presented.

We start by considering the relevance of the overall indicators for reforms and political freedom in attracting foreign banks. Table 8 presents the regression results. It follows that reforms, measured by the factor *REFORM,* have a significant impact on foreign bank entry. This also holds, albeit to a lesser extent, for the political freedom factor (*POLITIC*). The regressions also confirm the importance of the size of the financial sector and the openness of a country. However, as is shown by equation 4, *FINSIZE* becomes insignificant if a variable for the wealth of a country (*WEALTH*) is included. This is probably due to the high collinearity between these two variables.

The regressions so far deal with "reduced form" effects of reforms on foreign bank entry. Ultimately it is important to know via which channels reforms may attract foreign banks. We make a first attempt to shed some more light on this issue by examining whether reforms affect foreign bank entry by improving the efficiency of the financial sector, by affecting the structure of the financial sector or by affecting domestic investments. The choice for these channels is suggested by the high correlation coefficient between *FINEFF, FINSTR* and *INVEST*, on the one hand, and *REFORM,* on the other (see Table 7).

Table 9: System estimates for reforms

Equation	*1A*	*1B*	2A	2B	3A	3B
Dep Var	*FBANK*	*FINEFF*	*FBANK*	*FINSTR*	*FBANK*	*INVEST*
FINSIZE	1.993 (3.63)		-1.731 (-1.12)		0.584 (0.75)	
OPEN	1.158 (2.51)		-0.083 (-0.09)		1.011 (2.13)	
FINEFF	-1.069 (-3.79)					
FINSTR			2.254 (2.94)			
INVEST					1.459 (3.54)	
WEALTH		0.255 (0.92)		0.637 (3.22)		0.700 (2.60)
POLITIC	-0.732 (-3.49)	0.335 (1.04)	-0.690 (-2.26)	-0.803 (-3.24)	-0.543 (-1.98)	-0.376 (-1.10)
REFORM		-0.591 (-5.12)		0.371 (4.26)		0.377 (3.19)
adj. R^2	0.62	0.65	0.19	0.73	0.44	0.60

Note: equations 1A and 1B (2A and 2B; 3A and 3B) are estimated as a system by three-stage least squares. The amount of observations for all equations is 54. t-values between parentheses. Country specific dummies are taken into account in all equations. Because of singularity problems, the country dummy for Croatia is ignored in equations 1A, 2A and 3A. Due to multicollinearity (and also singularity problems) *REFORM* is not added in the equations for foreign bank entry.

Equations 1A and 1B show that reforms significantly affect foreign bank entry via the efficiency of the financial sector. Remember, that a decrease in *FINEFF* reflects an increase in efficiency. Political reforms appear to have a direct effect on foreign bank entry, but not via the efficiency of the financial sector. Reforms also appear to attract foreign banks due to a positive effect on the financial structure (*FINSTR:* equations 2A and 2B) and domestic investment (*INVEST:* equations 3A and 3B).

6. Summary and conclusions

This paper examines whether reforms and political freedom are important for foreign bank entry for a group of 8 transition economies. We first test the relevance of six individual indicators. Next, we construct an overall reform and political freedom variable by applying a factor analysis on the six individual indicators, and consider the relationship between these two factors and foreign bank entry. The regression results provide strong evidence that foreign bank entry positively responds to reform measures. We also find some evidence for the importance political freedom. Moreover, we make a first attempt to understand via which channels reforms attract foreign banks, and find that reforms significantly affect foreign bank entry via the efficiency of the financial sector, the structure of the financial sector and by having a positive effect on domestic investments. Clearly, more research, is needed to exactly figure out why and how foreign banks react to economic reforms. It also is important to examine under which circumstances foreign bank entry is beneficial for a country, an issue that has not been addressed in this paper. Nonetheless, the results of our empirical analyses are intriguing and of utmost importance for policymakers in transition economies who want to attract foreign banks.

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Appendix 1: Description of the variables

Variable	Definition	Source
VFORB	Value of assets of foreign deposit money banks divided by the value of assets of all banks	ACE Database (Bol et al., 2002)
NFORB	Total number of foreign banks divided by total number of banks	ACE Database (Bol et al., 2002)
FBANK	**Foreign bank entry indicator**	
EBRDIBR	Reform in the banking sector and interest rate liberalisation Dummy variable with range 1-4	European Bank of Reconstruction and Development (EBRD, 2001, 1998)
EBRDFR	The transition of trade and the foreign exchange system Dummy variable with range 1-4	European Bank of Reconstruction and Development (EBRD, 2001, 1998)
EBRDIER	Extent of transition within enterprises Dummy variable with range 1-4	European Bank of Reconstruction and Development (EBRD, 2001, 1998)
PRSEC	Share of the private sector relative to the public sector	European Bank of Reconstruction and Development (EBRD, 2001, 1998)
CIVILR	Degree of civil and political rights Dummy variable with range 1-9	CIFP country indicators for foreign policy; website: http:/www.carleton.ca/cifp/docs
DEMOC	Degree of democracy Dummy variable with range 1-9	CIFP country indicators for foreign policy; website: http:/www.carleton.ca/cifp/docs
REFORM*	**Reform indicator**	
POLITIC*	**Political freedom indicator**	
PRIVATC	Private credit by deposit money banks divided by GDP	ACE Database (Bol et al., 2002)
BANKGDP	Deposit money bank assets divided by GDP	ACE Database (Bol et al., 2002)
BANKTOTAL	Deposit money bank assets divided by the sum of central bank assets and deposit money bank assets	ACE Database (Bol et al., 2002)
M2GDP	M2 divided by GDP	Worldbank development indicators CD-ROM and World development Report 2002, 2000/2001, 1999/2000.

MARKETC	Stock market capitalization in percentages of GDP	European Bank of Reconstruction and Development (EBRD, 2001, 1998)
Variable	**Definition**	**Source**
SPREAD	Lending minus deposit rate	Worldbank development indicators CD-ROM and World development Report 2002, 2000/2001, 1999/2000
INFL	The rate of inflation	Worldbank development indicators CD-ROM and World development Report 2002, 2000/2001, 1999/2000
FINSIZE*	**Financial sector size indicator**	
FINEFF*	**Financial sector efficiency indicator**	
FINSTR*	**Financial sector structure indicator**	
GDPPC	GDP per capita, in US Dollars	European Bank of Reconstruction and Development (EBRD, 2001, 1998)
INVEST	Investment rate divided by GDP	European Bank of Reconstruction and Development (EBRD, 2001, 1998)
POP	The size of the population, in millions	European Bank of Reconstruction and Development (EBRD, 2001, 1998)
FDIGDP	Foreign direct investment divided by GDP	European Bank of Reconstruction and Development (EBRD, 2001, 1998)
IMPGDP	Imports divided by GDP	European Bank of Reconstruction and Development (EBRD, 2001, 1998)
TARIFF	Tariff revenues divided by imports	European Bank of Reconstruction and Development (EBRD, 2001, 1998)
TRADE	Trade divided by GDP	European Bank of Reconstruction and Development (EBRD, 2001, 1998)
OPEN*	**Openness of a country indicator**	
INVEST*	**Investment indicator**	
WEALTH*	**Wealth indicator**	

* Indicators are constructed by the use of factor analysis.